Aulos and Crotals in Graeco-roman Egypt
Dr. Marwa Abd el-Maguid el-Kady*

Abstract:

Aulos and crotals are two totally different musical instruments. Aulos is a wind instrument, while the crotals are of percussion type. They were preferably played in Egypt during the Graeco-roman period.

Aulos αὐλός was widely used in Graeco-roman Egypt and connected with cults of Egyptian deities like Bes, Hathor, Bastet and Harpocates; and Greek and Roman divinities like Dionysus (Bacchus), Athena (Minerva), and Apollo. This can be attested by historians, scenes, terra-cotta figurines and daily writings. However, the oboe (the double pipe musical instrument) had already been known in Pharonic Egypt and represented in many musical scenes in the tombs from at least the New Kingdom. During the Ptolemaic period, the aulos replaced the Egyptian oboe and played a great role in everyday life.

As for crotals Κκρόταλα, they were percussion musical instruments already known in Greek and Roman worlds. They had been also known in Egypt since early times and well attested during the Graeco-roman period and played a great role in the Egyptian society then.

The research studies the importance of each instrument in Graeco-roman Egypt at the religious and secular levels, through investigating their role in history, mythologies, and art. Moreover, the research also studies the connection between the two instruments and when they were played together in Graeco-roman Egypt. The research also results in important roles concerning the two musical instruments; aulos and crotals in

* Associate Professor - Tourist Guiding Department. - Faculty of Tourism and Hotels, Alexandria University, elkady.marwa@yahoo.com
Graeco-roman Egypt. These roles can be divided in religious ones connected with the cult of different divinities; Egyptian, Greek and Roman; religious festivals, and other roles related to daily life activities.

**Key Words:**
Aulos, crotals, Graeco-roman, figurines, lamps, religious, secular, representations, and papyri.

**Introduction**

Music played a major role in religious and secular lives in ancient Egypt throughout Pharaonic and Graeco-roman periods. Different types of musical instruments were originated in Egypt and introduced into other civilizations and vice versa. Music was particularly associated with aspects of joy and pleasure\(^{(1)}\).

Aulos and crotals are among the most common musical instruments played in Graeco-roman period in daily occasions. Simultaneously, they are connected with cults of Greek and Egyptian deities, and thus had a role in religious concepts and events in Egypt. Aulos is a wind instrument and crotals are percussion. Each had its own importance in Graeco-roman Egyptian society. Sometimes both were played together in certain occasions.

**Aulos in Greek and Roman Worlds:**

Aulos is a double-ooe pipe known in ancient Greek as αὐλός and "tibia" in Latin, meaning "tube" or "pipe"\(^{(2)}\). It refers to the wind instrument which consists of two pipes provided with finger holes and a mouthpiece. This instrument was made of reed, wood, bone, ivory, metal or wood encased in metal (bronze or

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\(^{(1)}\)Emerit, S., "Les musiciens de l'ancien Empire", p.3; Teeter, E., "female Musicians in Pharaonic Egypt", p.68.

silver)\(^{(3)}\); and each one had two or more sections, and a bulbous to hold the reed known as (ὀλμος) \(^{(4)}\) (fig.1). The latter is the end part of the mouthpiece. Its length can reach 9 cm. It usually has a socket at one end and a spigot at the other. The real function of the bulb is not recognized, as some auloi are represented with no bulbs at all; their function may be related to the balancing of the instrument in the hands of the player or decorating purposes\(^{(5)}\).

Both of the two pips of the aulos were played together at the same time; one at each hand\(^{(6)}\). The finger holes of the instrument varied between four and five (three finger holes and a thumb hole), and its bore ranged between 8-10 mm\(^{(7)}\). However, in some cases aulos had more holes, and the player could choose the required ones according to the scale he played. The length of the aulos ranged usually from 20 to 30 cm; in very few cases it could reach 50 cm\(^{(8)}\). The aulos was kept in a double pouch case known as Sybene made of dappled animal skin like leopard, and the reed mouthpiece was kept in an oblong box attached to the pouch\(^{(9)}\) (fig.1).

The player who played this instrument was known as αὐλητής \(\text{Auletes}^{(10)}\). He sometimes wore a special kind of leather strap or girdle called φορβειας phorbais, or Latin "capistrum" meaning "halter" which went across the mouth, provided with two holes

\(^{(3)}\)West, M. L., Ancient Greek Music, p. 86; A Lexicon Abridged from Liddell and Scott’s, p.115.
\(^{(4)}\)Wilson, P., "The aulos in Athens", p.69.
\(^{(5)}\)Andreopoulou, A., Modeling the Greek Aulos, p.16; Landels, H. G., Music in Ancient Greece and Rome, p.27, p.33; West, M. L., Ancient Greek Music, p.85. The double pipes used today in Middle East, has the two pipes fixed together with one mouthpiece, Landels, H. G., Music in Ancient Greece and Rome, p.43.
\(^{(6)}\)Some writers think it is more appropriate to be called Auloi αὐλοί in the plural form rather than the singular aulos, West, M. L., Ancient Greek Music, p.81.
\(^{(8)}\)West, M. L., Ancient Greek Music, pp.87-89.
for the two pipes of the aulos, and then went round the back of the head. The strap's function was to restrain the lips and cheeks of the player\(^{(11)}\). By the fourth century B.C., aulos players wore costumes and were used as members of the Greek drama\(^{(12)}\). In Athenian society, aulos players were foreigners and mostly slaves\(^{(13)}\). In Egypt, Ptolemy XII was known as Auletes or Aulos-player due to his fondness of playing this instrument, and he was blamed to be out of royal dignity due to his passion of this instrument\(^{(14)}\).

Playing pipes in pairs had already been known in ancient civilizations. It is not known when exactly it was introduced into Greece, but the earliest evidence is dated to the eighth century B.C. Thus, it was a foreign instrument introduced into Greece\(^{(15)}\) from the eastern civilizations of Mesopotamia, Syria or Egypt\(^{(16)}\). It was played in various occasions; weddings, banquets, funerals, sport contexts like wrestling and boxing, battle fields, and temples\(^{(17)}\). The aulos was also played during the festivals held for the gods, musical contests, and in background for dramatic works accompanied by other musical instruments, poetry and dancing\(^{(18)}\).

In Rome, the aulos was common; as it was introduced into it from Lydia by the Etruscans, especially that the latters adopted the Greek music with all its aspects. It was used in the Roman

\(^{(12)}\)Whitwell, D., Essays of the Origins of Western Music, p.4.
\(^{(13)}\)Wilson, P., "The aulos in Athens", p.58.
\(^{(15)}\)West, M. L., Ancient Greek Music, p.82; Olsen, P. R., "An Aulos in the Danish National Museum", p.3.
world more than any other musical instrument, especially in religious occasions and sacrifices, in comedies and theatre, streets, and in private occasions as well\(^{(19)}\). In addition, like in Greece, aulos was also widely employed in the Roman theatre from at least the fourth century B.C.\(^{(20)}\).

There were two different traditions concerning the invention of the aulos. The first is connected with the Asian Minor origins of the instrument, from Phrygia\(^{(21)}\). According to this tradition, the aulos was introduced into Greece from Asia Minor along with the cults of Cybele and Dionysus; the Phrygian Marsyas is the inventor of the aulos and composer of the oldest known piece for the instrument known as *Metroon aulema* "Great Mother's aulos tune". The other tradition is a very popular myth in the fifth century B.C. connected with the goddess Athena (Roman Minerva), which tells that the aulos was created by this goddess and that she threw it away, perhaps when she looked in a river and saw her reflection and noticed the distortion of her face due to the exertion resulted from the blowing of the instrument, and then Marsyas picked it up and developed his skill in playing it\(^{(22)}\).

In this way the Greeks could justify their use of a foreign instrument that became very popular in the Greek tradition. In the myth of Athena they gave the priority to the Greek goddess justifying how the aulos reached Asia Minor and being re-introduced into Greece accompanied by a Phrygian tradition. The introduction of the aulos into Greece therefore coincided with the introduction of the cult of Dionysus from Asia Minor; and the aulos therefore was specially played during the great festival of


\(^{(21)}\) Wilson, P., "The aulos in Athens", p.61.

Dionysia\(^{(23)}\). The earliest known employment of using aulos was to accompany lyric poets of the seventh century B.C., and appeared on the vases of the sixth century B.C. as well\(^{(24)}\).

Apollo was also connected with aulos. There was a contest between Apollo and Marsyas. The latter claimed that he could play music better than Apollo, who played the Cithara while Marsyas played the aulos. The Muses were the judges of this contest which took place in Phrygia. Apollo won and Marsyas was flayed, and his skin was hung in a temple in Celaenae (a city in Phrygia)\(^{(25)}\). Euterpe, the muse of music and lyric poetry is also connected with the aulos being represented playing it as one of her attributes\(^{(26)}\).

One of the famous themes on Greek vases was the depiction of aulos playing \(^{(27)}\). The aulos is represented being played in different manners, held by players at different angles; either the two pipes of the aulos are played separately, or brought together\(^{(28)}\).

In Rome, aulos (Tibia) used to be played in religious cult celebrations with singers and dancers performing rites in honor of Mars the god of war during the seventh and eighth centuries B.C\(^{(29)}\).

\(^{(23)}\) Mathiesen, T. J., Apollo's Lyre, p.177; Wilson, P., "The aulos in Athens", p.75. Dionysia was one of the greatest festival and specially connected with Dionysus the god of wine. Therefore, drama and theatrical performances were held during this festival in the honor of Dionysus, Winkler, J. J. and Zeitlin, F. I., Nothing to Do with Dionysos?, pp.98-99.


\(^{(27)}\) Manniche, L., "The Erotic Oboe", p.190.


\(^{(29)}\) Whitwell, D., Essays of the Origins of Western Music, p.11.
Forms and Types of the Aulos

The forms and types of aulos widely developed throughout the Greek and Roman ancient history. Therefore, there are different classifications of the types of the aulos, or the Roman Tibia recorded in Greek and Roman writings. These classifications are made according to the type of the musical instrument they accompany, ethnicity, pitch, or the material\(^{30}\). The most famous classification is that of Ἀθηναῖος Athenaeus \(^{31}\) from 200 A.D. (Athenaeus, Deipnosophistae, XIV, 634\(^{32}\)). According to him, there were five main types of aulos: first, the virginal παρθίνιοι Parthenioi or "girl-type" or "maiden" aulos, as it was accompanied by a maiden choral performance. The Second is the child-pipes παιδικοὶ Paidikoi or "boy-type". The third is the Cithara-pipes κιθαριστήριοι Kitharistērioi or "lyre-playing-type", which was played with Cithara and can be easily recognized in paintings of Greek vases with a length of about 35 cm. The fourth is the complete πέλειοι Teleioi or "grown-up" or "perfect", and the fifth is the super-complete ὑπερτέλειοι Hyperteleioi or "super-grown-up" or "super perfect" used to accompany a man's voice and must have been the longest with a length of about 90 cm \(^{33}\).

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\(^{30}\)Scott, J. E., "Roman Music", p.407.

\(^{31}\)Athenaeus of Naucratis, a Greek-Egyptian author who wrote the Deipnosophistae Δείπνοσοφισταί "the dinner sophists" in the beginning of the third century A.D. and considered as a literary and historian work set in Rome at banquets as an assembly of grammarians, lexicographers and musicians, Dalby, A., Siren Feasts, pp.168-180.

\(^{32}\)Athenaeus, Deipnosophists, C.36, p.1013.

\(^{33}\)Wilson, P., "The aulos in Athens", p.70; West, M. L., Ancient Greek Music, p.89; Whitwell, D., Essays of the Origins of Western Music, pp.1-2; Curt, S., The History of Musical Instruments, p.139; Wardle, M. A., Musical Instrument in the Roman World, p.92, 94. Although Athenaeus writing were contemporary to the imperial period, most of his information about the types of instruments comes from earlier writings, and thus some of the mentioned instruments and their names may have been obsolete by then. Besides, there is no Roman equivalents to those names, as Greek at that time was the language of music, Wardle, M. A., Musical Instrument in the Roman World, pp.93-94.
The Greeks were accustomed to classify musical instruments in general and auloi in particular into two very distinct categories: first, instruments considered to be properly Greek, and the other instruments of foreign origins; thus, Phrygian aulos, Libyan aulos and Egyptian aulos. The latter is the flute played in transversal attitude, known in Latin as obliqua tibia or "transverse aulos" or "cross flute" and called in Greek as πλαγίαυλος Plagiaulos\(^{(34)}\). According to Athenaeus (IV,175e,f) the flute in general θωτιγξ came from Egypt and was an invention of Osiris\(^{(35)}\) as he says "the Egyptians call the 'single-pipe' an invention of Osiris"\(^{(36)}\).

In addition to those classifications there are others; classified according to the pitch of the instrument like milvina tibia and the gingrinae. The latter is originally Phoenician, connected with the cult of Adonis, of a small size and high pitched. There is another classification made according to the material of the instrument\(^{(37)}\). For instance, the auloi that are made of λωτός lotos reed scientifically known as celtis australis, which is native of North Africa, were referred to as "Libyan"\(^{(38)}\), the Lydian aulos also known by the Roman as tibiae serranae or "Phoenician pipes" made of ivory and had two pipes of equal length and number of finger holes\(^{(39)}\).

There was a special type of double reed pipes known as "Phrygian" notable in depiction of the Roman Imperial period as they usually appear in Roman art (fig.2), in which one pipe is rectilinear, while the other, which is the left pipe terminates in a

\(^{(34)}\)Bélis, A., "L'aulos Phrygien", p.25; Hickmann, H., Terminologie Musicale, pp.21-22.
\(^{(36)}\)Athenaeus, Deipnosophists, Book IV,175 e,f.
\(^{(37)}\)Wardle, M. A., Musical Instrument in the Roman World, p.92, p.94-95.
\(^{(39)}\)Mathiesen, T. J., Apollo's Lyre, P.183; Hickmann, H., Terminologie musicale, p.603.
curved portion in the shape of a cone curving upwards. It is usually connected with the cult of the Great Mother Goddess in Rome\(^{(40)}\). The Phrygian aulos accompanied the ceremonies of the goddess Cybele and funeral rituals\(^{(41)}\). The Phrygian aulos in Greek is known as αὐλός ἔλυμος and in Roman as \textit{tibia Berecyntha} as an indication to the Mountain Berecynthus near the River Sangarius in Phrygia”\(^{(42)}\).

**Aulos in Graeco-roman Egypt**

The ancient Egyptians played wind instruments from a very early period dated at least from the pre-historical times. Among the earliest instruments played were the flute and the oboe\(^{(43)}\). The most played wind instruments during the Old Kingdom are the long flute or \textit{nay} with two to six finger holes\(^{(44)}\) especially the type known as "End-blown flute", known in ancient Egyptian as \textit{m3t} \(\begin{array}{c}
\includegraphics[width=1cm]{flute1}\end{array}\) or \(\begin{array}{c}
\includegraphics[width=1cm]{flute2}\end{array}\)\(^{(45)}\). The performer usually appears in the scenes with one leg bent and foot rests on ground, and rarely playing it while standing (fig.3)\(^{(46)}\). In some cases two reeds of the clarinet type can be joined together forming a double-clarinet\(^{(47)}\), which was known in ancient Egyptian as \textit{mmt} \(\begin{array}{c}
\includegraphics[width=1cm]{clarinet1}\end{array}\) or \(\begin{array}{c}
\includegraphics[width=1cm]{clarinet2}\end{array}\)\(^{(48)}\) consisting of two reed tubes of equal length closely tied to each other along their entire length of 4-5

\(^{(40)}\)West, M. L., Ancient Greek Music, p.22.  
\(^{(41)}\)Bélis, A., "L'aulos Phrygien", p.603; Curt, S., The History of Musical Instruments, p.139.  
\(^{(43)}\)Landels, H. G., Music in Ancient Greece and Rome, p.24, 42;  
\(^{(45)}\)Wb II, p.6, no.8.  
\(^{(46)}\)Arroyo, R. P., Egypt, pp.2378-2379; Hickman, H., Terminologie musicale, p.399;  
\(^{(47)}\)Anderson, R. D., Catalogue of Egyptian Antiquities, p.64;  
\(^{(48)}\)Wb II, p.59, no.1.
cm, by being joined at the mouthpiece and distal ends by a resinous material which is modern Zummara or Mashûrah \(^{(49)}\) (fig.4). The flute was a predominant instrument during the Old and the Middle Kingdoms \(^{(50)}\).

Another famous wind instrument known in ancient Egypt was the oboe, which consists of two pipes of equal length but placed in divergent positions making an angle in the form of \(\wedge\). The two pipes had the same length, or one is longer than the other \(^{(51)}\). It was known in ancient Egyptian as \(\begin{align*} &\mid \mid \\ &\mid \mid \end{align*}\) or \(\begin{align*} &\mid \mid \\ &\mid \mid \end{align*}\) \(\text{wdny}\) or \(\text{wdnyt}\) \(^{(52)}\). It is possible that the double oboe was originally a foreign instrument introduced into Egypt from Mesopotamia, specifically Ur, where typical instruments dated from 2000 B.C. were found, while it was only known in Egypt during the New Kingdom. Playing this instrument is restricted to female musicians along with other instruments like lute and harp (fig.5) \(^{(53)}\). The double oboe is also shown among the amusing scenes. A good example is an ostarcon from Deir el-Medina depicted with a monkey playing the double oboe (fig.6). Another one also from Deir el-Medina is a vase decorated with a representation of Bes playing the same instrument. A third is a depiction of animals doing human activities on a papyrus in the

\[^{(49)}\] Arroyo, R. P., Egypt, p.379; Hickmann, H., Terminologie musicale, p.599, 617; Manniche, L., Music and Musicians, p.173; Anderson, R. D., Catalogue of Egyptian Antiquities, p. 64; Emerit, S.,"Les musiciens de l'ancien Empire", p.7. Zummarah is used for high notes and held horizontally, while the Mashûrah is held at a downwards sloping angle to produce lower notes, Gadalla, M., Egyptian Rhythm, p.135. This instrument sill used in Egyptian country side and named according to the number of holes for instance Zummar Setuweya "sial clarinet" when the instrument has six holes, or Zummarah rabaweya "foural clarinet", if it has four holes... etc.,

\[^{(50)}\] Anderson, R. D., Catalogue of Egyptian Antiquities, p.64.

\[^{(51)}\] Gadalla, M., Egyptian Rhythm, pp.133-34. This instrument is still known today in Egypt as Arghul, \(\wedge\) \(\text{w} 9\).

\[^{(52)}\] Wb I, p.409, no.9; Hickmann, H., Terminologie musicale, p.601.

\[^{(53)}\] خالد شوقى على البسيونى، "مناظر الحفلات الموسيقية", ص. 62.

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British Museum dated from the New Kingdom. It shows a fox as a shepherd playing the oboe behind the flock \(54\) (fig. 7).

In the Ptolemaic period, the oboe was developed into the form of the Greek aulos and its use remained in use till the Roman period \(55\). Thus, the ancient Egyptians had known the double pipe instrument long before the Greeks \(56\). However, the aulos with its traditional form did not appear in Egypt before the Graeco-roman period \(57\); it only appeared in Egypt under the Ptolemaic rule \(58\)

The aulos was part of the daily life in Graeco-roman Egypt. It was played in royal occasions; as Plutarch \(\text{The Parallel Lives: The Life of Anthony, IX 26}\) describes the journey of Cleopatra VII when she sailed to meet and impress Mark Anthony "sailed up the river Cydnus in a barge with gilded poop, its sails spread purple, its rowers urging it on with silver oars to the sound of the double pipe [aulos] blended with [Pan]-pipes [syrinx] and lutes" \(59\)

There is a plenty of terra-cotta figurines from the Graeco-roman period represented with musicians playing the aulos. A terracotta figure dates to the Graeco-roman period in the Hungarian National Museum (fig. 8) shows a seated priest who plays aulos with two lotus buds on his head with a floral wreath and ribbons fall on the shoulders. Next to his advanced right foot is an amphora on a stand \(60\). There is another terracotta figurine of the same type dated from the Roman period in the Louvre.


\(55\) Emerit, S., "Music and Musicians", p.4.

\(56\) Olsen, P. R., "An Aulos in the Danish National Museum", p.3.

\(57\) Hickmann, H., "Classement et classification", p.21

\(58\) Hickmann, H., Terminologie musicale, p.602.


\(60\) Török, L., Hellenistic and Roman Terracottas, pp.112-113.
Museum (fig.9). The priest dresses in a similar way with the Lotus buds on his head and the same attitude in the way he plays the aulos and the way he is seated with the amphora placed on a stand next to his advanced right foot\(^{(61)}\). Another terra cotta vase shows that aulos can be played along with other musical instruments (fig.10); as an aulos player is represented seated and playing it in the same attitude, while to his left sits a female lyre player. Again, an amphora is represented here, this time between the two musicians\(^{(62)}\).

Other examples of terra-cotta figurines show different attitudes of aulos players; some of these figurines can be represented with standing naked ladies accompanied by a young aulos player, either a child or slave, next to their right leg. An important example of this type is now in the British Museum (fig.11), which shows a naked lady accompanied by an aulos player standing next to her right leg\(^{(63)}\).

Another attitude of aulos player is shown by a headless terracotta figurine in the British Museum (fig.12) dated from the Ptolemaic period which shows a squatted naked male ithyphallic figure playing aulos\(^{(64)}\). Another terra cotta figurine also in the British Museum (fig.13) dated from the Ptolemaic period shows a bald dancing male wearing a loincloth, or a piece of cloth wrapped round his thighs, and a festive wreath playing the aulos while performing a dancing move\(^{(65)}\).

Playing the aulos was also one of the common themes figured in terracotta lamps during the Graeco-roman period found in Alexandria, from Koum Elshoqafa Cemetery. An evidence of this is a terracotta lamp of the collection of Lawrence in

\(^{(61)}\) Dunand, F., Catalogue des terres cuites, p.193, no.541. \\
\(^{(62)}\) Hickmann, H., "Miscellanea Musicologica", p.539. \\
\(^{(63)}\) Vendries, C., "Questions d' iconographie musicale, p.204. \\
\(^{(64)}\) Villing, A. and others, Naukratis, DC.190 (Phase 1). \\
\(^{(65)}\) Villing, A. and others, Naukratis, IC.002 (Phase 3).
Alexandria (fig.14) represented with four figures: on the left is the god Bes, next to him are three musicians seated on a couch wearing the Chiton; the first plays a syrinx, the central one plays an aulos, and the third plays a cithara\(^{(66)}\). Another terracotta lamp dated to the Roman period in the British Museum (fig.15) shows a figure of Eros riding on a dolphin and playing an aulos\(^{(67)}\). Another Roman terracotta lamp in the same museum (fig.16) shows a dancing male figure wearing animal skin and playing a Phrygian aulos with one pipe curved at the end and longer than the other\(^{(68)}\).

Aulus may also had a funeral function according to Bodley\(^{(69)}\) concerning the discovery of four Egyptian auloi found at Meroe in 1921 in the Museum of Fine Arts in Boston, dated to about 15 B.C., or the beginning of the Roman period. He mentions that they were deliberately broken as a funerary ritual to release the spirit of the instruments into the other world\(^{(70)}\). Moreover, the aulos is also depicted in funeral scenes. A good example of this is the coffin floorboard dated from the Roman period in the Royal Ontario Museum (fig.17) represented with a female deceased leaning on the funeral bed with a winged right arm. Under the funeral bed is a three-legged table with a pointed amphora. On the right of the scene is a pedestal in the form of a pylon gate centered by a goddess who holds two serpents in her two hands. The gate is surmounted by a dancing musician who plays with an aulos. On the left side of the scene stands a figure of Horus as a falcon on a pillar\(^{(71)}\).

\(^{(68)}\)Bailey, D. M., Catalogue of the Lamps, Lamp Q3345.
Crotals in Graeco-roman Egypt

Crotals are one of the percussion metal musical instruments\(^{(72)}\) used to reinforce the rhythm of the melody. It is formed of two handles made of wood or metal well attached at the bottom, as they are formed of one elastic metal rod (fig.21). Each handle is ended at the top by a metal plaque, or a cymbal in a way that the two plaques face each other. The two handles in some cases can be attached together by a stick of different forms\(^{(73)}\). During the performance, the two arms of the instrument were held between the thumb and the middle finger in both players' hands. When the two metal cymbals banged, the sound was made\(^{(74)}\).

Crotals are well distinguished from clappers, or clap sticks known in antiquity\(^{(75)}\), and called in ancient Egyptian as \(\overline{\text{\苞}}\) or \(\overline{\text{\苞}}\) or "the two forearms" referring to the interlocked platelets of the clap sticks\(^{(76)}\) (fig.18). They were made of wood, bone, ivory or metal; they can have a straight or curved handles terminated by ornaments such as animal or human head or lotus flowers\(^{(77)}\).

The crotals are known in ancient Greek as \(\text{Κρόταλα}\) meaning "clackers". It is a plural word as the instrument was played in pairs\(^{(78)}\). Clement of Alexandria mentions \(\text{κρόταλα}\) separately from cymbals. Cymbals on the other hand, consist of two identical metal plates and vary in form. Each cymbal is pierced with a hole to hold a handle or a chain or a cord which linked the two cymbals together. The two cymbals make sounds by being

\(^{(73)}\)Hickmann, H., "Cymbals et crotales", p.524.
\(^{(74)}\)Landels, H. G., Music in Ancient Greece and Rome, pp.82-83.
\(^{(75)}\)Teeter, E., "female Musicians in Pharaonic Egypt", p.69
\(^{(76)}\)Hikmann, H., Catalogue générale, p.4; Hickmann, H., Terminologie musicale, p.590.
\(^{(77)}\)Gadalla, M., Egyptian Rhythm, p.146.
\(^{(78)}\)Landels, H. G., Music in Ancient Greece and Rome, pp.82-83; Hickmann, H., Terminologie musicale, p.616.
struck against one another\(^{(79)}\) (fig.19). It was known in ancient Egyptian as 𓊊𓊊 or 𓊊𓊊 dndn or "the two bronzes" and known in Greek as κύμβαλον and in Latin as cymbalum kymbala "tinkling cymbal"\(^{(80)}\). It is an instrument still used today in Egypt and known in Arabic as aṣ-ṣâġāt الصاجات or الصاج the plural word of الصاج which means tinplate, the material of which the instrument is made of\(^{(81)}\). Many cymbals of different sizes and diameters have been found in Egypt and dated from the Graeco-roman period. They can be large of a plate type or medium of a cup type\(^{(82)}\).

The crotals appear on Greek vases from at least the seventh and sixth century B.C. played by male and female musicians. The most common theme in this case shows the performer dancing and playing with crotalas in his two hands\(^{(83)}\) (fig.20).

Like aulos, the crotals were one of the well-recognized musical instruments in the Egyptian society during the Graeco-roman period. In an Egyptian papyrus dated from Ptolemaic period 245 B.C., there is a request for performers to play drum, cymbals and crotales\(^{(84)}\). There are two other papyri from the Roman period that indicate the same; one from 206 A.D. (Cornell Papyrus Inv. No.26) and the other from 237 A.D. (P. Grenfell 11, 67). They are contracts of crotals' players κρταλιστρις who are requested to perform in festivals. The former papyrus is for the entertainer Isidora to perform in Philadelphia dated from the Roman period (206 A.D) (Cornell Papyrus Inv. No.26. Second series).

\(^{(82)}\) Anderson, R. D., Catalogue of Egyptian Antiquities, p.23.
\(^{(83)}\) Redmond, L., "Percussion Instruments", p.70.
It says:

Ισιδώρα κροταλὶ 
παρὰ Ἀρτ[ε]μ[ῖ]ς ἀπὸ κώμης
Φιλαδελφείας. βούλομαι
Παρ[α]λαβεῖν σε σὺν ἑτέραι
κροταλ[ίσ]τρίαι, (γίνονται) (δύο), λιτουργήσασ αι
παρ ἡμῖν ἐπὶ ἡμ[έρ]ας ἐξἀπο

"To Isidora, castanet dancer, from Artemisia of the village of Philadelphia. I request that you, assisted by another castanet dancer- total two-undertake to perform at the festival at my house". The other papyrus is from Arsinoe at el-Fayum, for ten day festival in the village of Bacchias (P. Grenf., II, 67) dated to 237 A.D of two crotals' players.

A good example of the musical instrument of crotals is found in the British Museum (fig.21). The two handles are made of wood terminated by a grip of leather and the cymbals have the shape of saucer depression with a decoration of two circles. There is another fine example dated from the Roman period in the British Museum as well (fig.22). It is made of bronze with a grip in the form of an altar supported by four pillars surmounted by a decorated shape with a hole. One handle arm is decorated on the outside part with diamond patterns and circles, while the other arm is decorated along its outside part with only three lines. The two crotals have bronze cymbals attached to the end of the handles by bronze split pins. The two pairs of cymbals have

[86] Wardle, M. A., Musical Instrument in the Roman World, p.339. These performances are usually connected with religious festivals either held by private individuals and families, or by entraining and pleasure clubs, Westermann, W. L., "Entertainment of the Villages", pp.16-27.
saucer-shaped depression and decorated with concentric circles\(^{(87)}\).

Figurines depicted with crotals are also found, like the case of a bronze statuette in the British Museum (fig.23), which is dated from Ptolemaic period and represented with a dancing female dwarf, with physical deformities wearing a tunic and a wreath with papyrus buds on her head playing with a pair of crotals in her two hands\(^{(88)}\).

**Playing Aulos and crotals Together in Graeco-roman Egypt**

In Egypt both instruments; the aulos and the crotals were connected with religious purposes and were played together in rituals of certain deities. In Zenon Papyrus (P. Hibeh, 54 of 245 B.C.)\(^{(89)}\), there is a request from a wealthy Greek who writes to a friend asking for a player of a Phrygian aulos (*Tibia Phrygia*) named Petius, and Zenobius the effeminate, the crotals' player and to bring a drum, cymbals and crotals along for dance music in the festival of Isis\(^{(90)}\).

Herodotus in the fifth century B.C. describes the festival of Bastet on the fifteenth of the second month of the inundation (Herodotus II. 60), he mentions:

\[ \text{ἔς μὲν νυν Βούβαστιν πόλιν ἐπεάν κομίζωνται, ποιεῖσθι τοιάδε. π λέουσι τε γὰρ δῆμα ἄνδρες γυναιξὶ καὶ πολλὸν τι πλήθος ἐκατέρ ων ἐν ἐκάστῃ βάρι: αἱ μὲν τινὲς τῶν γυναικῶν κρόταλα ἔχουσι κ ροταλίζουσι, οἱ δὲ αὐλέουσι κατὰ πάντα τὸν πλόον, αἱ δὲ λοιπὰ γ υναῖκες καὶ ἄνδρες ἀείδουσι καὶ τὰς χεῖρας κροτέουσι.} \]

\(^{(88)}\)http://www.britishmuseum.org/collectionimages/AN00967/AN00967211_001_l.jpg
\(^{(89)}\)Zenon Papyrus. P. Hibeh, p.200-201, 245BC.
"When people are on their way to Bubastis they go by river, men and women together, a great number of each in every boat. Some of the women make a noise with *krotala*, others play *auloi* all the way, while the rest of the women, and the men, sing and clap their hands"\(^{(92)}\). This was part of the celebration of the annual feast of the cat goddess Bastet, who was also identified with the two Greek goddesses Artemis and Aphrodite\(^{(93)}\).

**Conclusion**

It is clear through the above mentioned evidences that aulos and crotals played essential roles in the Egyptian society during the Graeco-roman period at both religious and secular levels. The major part of the credit of these roles turns to the Pharaonic roots, and the other part is owed to their importance in the Greek and Roman worlds.

The aulos played an important role in the Graeco-roman mythology. This wind instrument was connected with Athena, Apollo, Dionysus the muse Euterpe, and the Roman Mars. For Athena and Apollo, they are connected with innovation of this wind instrument. For Dionysus, the son of Zeus and Semele\(^{(94)}\), the wine god, his cult was specially connected with the aulos, particularly his great dramatic festival of *Διονύσια "Dionysia"*\(^{(95)}\). The tragedies and comedies of this festival were accompanied by chanting, tragic poets and aulos playing\(^{(96)}\). The aulos was also connected with Euterpe the muse of music due to its sound that stirs up emotions and sensuality\(^{(97)}\). As for Mars (the Greek


\(^{(93)}\)Manniche, L., Music and Musicians in Ancient Egypt, p.116.

\(^{(94)}\)Otto, W. F., Dionysus, p.65.

\(^{(95)}\)Henrichs, A., "Between Country and City", pp.257-258.


\(^{(97)}\)Borofka, D. E., Memory, p.88.
Ares), the Roman god of war and the most important after Jupiter, the son of Juno\textsuperscript{(98)}, the aulos or *Tibia* was played in his honor during cult celebrations and sacrificial rites. In addition, special types of aulos were connected with certain deities like the Phrygian aulos, which was specially connected with the Roman mother goddess Cybele *Magna Mater* (Great Mother) and her rites which were similar to those of Dionysus, as she was originally worshipped in the Phrygian mountains that embodied the fertile lands\textsuperscript{(99)}.

In Pharaonic Egypt, among the most popular divinities that were closely connected with music, is the god Bes who is sometimes represented playing a lute or beating a tambourine\textsuperscript{(100)}. Hathor was also connected with music; as she was the "mistress of dance", and "mistress of music", whose priestesses from the Old Kingdom are shown playing with *sistrum* and *menat*\textsuperscript{(101)}. The ancient Egyptians had already known the wind instruments and particularly the double pipes or the oboe from an early Pharaonic periods (figs.5, 6, 7) and played it in royal, religious, and special occasions. This means that they were already accustomed to such instrument and could accept the introduction of the Greek double pipe instrument of the aulos during the Ptolemaic period smoothly.

At a religious level, the oboe had been connected with the cult of Bes in Pharaonic Egypt, as he is represented playing the oboe in vase paintings (fig.24), statuettes\textsuperscript{(102)}, and in some cases a female player draws a tattoo of Bes on her thigh; like the example found on a wall of a house at Deir el-Medina. It shows a lady wearing a garment and surrounded by a plant that usually

\textsuperscript{(98)}Howaston, M. C., The Oxford Companion, p.365.
\textsuperscript{(100)}Diab, A. M., "Beating Tambourine", p.165; Dasen, V., Dwarfs in Ancient Egypt, p.73; Manniche, L., Music and Musicians, p.118
\textsuperscript{(101)}Teeter, E., "female Musicians in Pharaonic Egypt", p.68, 76.
\textsuperscript{(102)}Cairo Museum JÉ no.44045.
depicted in birth scenes. She has a tattoo of Bes figured on her two thighs and plays a double oboe (103) (fig.25). The oboe was also connected with the cult of Hathor and used in the ritual ceremonies, especially at making offerings to a deceased by a priest who is usually followed by a musician of Hathor playing the oboe. This function is similar to the use of the Greek the aulos which is played in the temples during presenting the offerings. Another evidence of the association between the cult of Hathor and the oboe is attested in the forecourt of her temple at Philae Island in which it is played by women along with representations of music playing performed by the god Bes and monkeys. Bastet, the cat goddess, identified with the Greek goddesses Artemis and Aphrodite (104); is also represented rarely playing the double oboe and in some animal concerts it was the cat that plays the double oboe (105).

Replacing the old Egyptian oboe, the aulos also had the same usages in royal, religious, funerary, and public lives. For royalty, it has been already mentioned how it was used during Cleopatra's procession in her journey to Mark Anthony. In addition, it was a favorite instrument of her father Ptolemy XII Neos Dionysus who was entitled Auletes or "Aulos player" due to his passion to play the aulos. This indicates that it was then a prime royal instrument.

For religion, as oboe was connected with Bes, Hathor and Bastet in Pharonic Egypt, the aulos in the Graeco-roman Egypt was connected with the same divinities along with others. The aulos was connected with Harpocrates. The seated aulos player next to an amphora is very popular in the first century B.C. (figs.8 and 9), usually crowned with buds of lotus, with his two

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(103) Hickmann, H., "Dieux et desses de la musique", p.34.
cheeks are blown while insufflating the aulos\textsuperscript{(106)}. The existence of the lotus buds connects this priest with the cult of Harpocrates in addition to the amphora which refers to a certain cult act of the same divinity\textsuperscript{(107)}.

For funerary usages, there is no recorded evidence from the Pharaonic period that the Egyptian oboe had funeral functions except being used in funeral processions. However, in the Graeco-roman period, it had a strong connection with the funerary rites, as Bodley mentions auloi were broken in a special funeral ritual in order to use their spirits into the other world to give joy and pleasure to the deceased\textsuperscript{(108)}. This function is firmly proved by the funeral scene (fig.17) which shows a musician playing the aulos to the female deceased. In fact this particular theme is well known in Roman funerary art, as there is a traditional representation of a boy playing the aulos, usually with short pipes near an altar at a sacrifice ceremony. It is believed that the boy plays the aulos to cover up any sound that may be heard by accident and spoil the rituals rather than playing it for the sake of music itself\textsuperscript{(109)}. However, in the Egyptian scene from the Roman period (fig.17) it is well noticed that the boy plays the aulos to amuse the deceased in the other life.

For public purposes, the aulos is one of the most commonly entertaining themes represented in terra-cotta figurines (figs.10, 11, 12, 13) and lamps (fig.14, 15, 16) in Graeco-roman Egypt.

Crotals on the other hand was also connected with religious and secular purposes in Graeco-roman Egypt. As for the religious, the Muses are often depicted in the Graeco-roman art playing with frame drums, flutes, crotals, lyres, and citharas\textsuperscript{(110)}.

\textsuperscript{(106)} Vendries, C., "Questions d’iconographie musicale", p.204, p.207.
\textsuperscript{(107)} Török, L., Hellenistic and Roman Terracottas, pp.112-113.
\textsuperscript{(110)} Redmond, L., "Percussion Instruments ", p.69.
In Egypt, the crotals were already known in the Pharaonic times and seems to have had a religious significance then, as shown in Luxor temple from the time of Tutankhamun (New Kingdom) where four musicians are playing with crotals during the procession of Apet festival\(^{(111)}\). This religious importance of the crotals remained during the Graeco-roman period as well. They were connected with the cult of female divinities like Isis, who was a "goddess of crotals" especially when she was assembled with Hathor whose priestesses played cymbals and crotals along with tambourines in her festivals\(^{(112)}\). Moreover, an inscription in the temple of Dendera mentions how the statue of Hathor was carried out of her temple after the harvest and presented to people to the sound of tambourine and crotals\(^{(113)}\).

For secular purposes, it is well indicated through papyri from the Graeco-roman period that it had an important role in public celebrations as they record different requests for crotals' players (Cornell Papyrus Inv. No.26, P. Grenfell 11, 67, and P. Grenf., II, 67). This is well indicated also by the bronze statuette (fig.22) of a dwarf lady who dances with the crotals in her hands.

For the decorations of both instruments; namely the aulos and the crotals, there are no special decorations recorded on the auloi found in Egypt, nor in its representations on terracotta figurines or lamps. On the other hand, some crotals were found decorated by geometric motives like circles and lines (figs. 20, and 21).

The usage of the two instruments together was however limited to religious celebrations connected with the cults of certain female divinities like in the case of Isis' festival recorded in Zenon Papyrus (P. Hibeh, 54 of 245 B.C.) and the other of Bastet recorded by Herodotus (Herodotus II. 60).

\(^{(111)}\) Gadalla, M., Egyptian Rhythm, p.148.
\(^{(109)}\) Hickmann, H., "Dieux et desses de la musique", p.51.
\(^{(113)}\) Manniche, L., Music and Musicians, p.67.
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Fig. 1 above is the five parts of the aulos. Below is the pouch and mouthpiece of the aulos

Fig. 2 Phrygian aulos on the right of the bas-relief of a priest of Cybele, mid-second century AD., Museo Capitolino, Rome, inv. n° 1207.
Bélis, A., *"L'aulos Phrygien"*, p. 23, fig. 3.
Fig.3 A musical scene showing musicians play harp, flute and clarinet, Tomb of Nikauhor, Saqqara S. 915.
Emerit, S., "Music and Musicians", p.3, fig.1.

Fig.4 Two double clarinets. Cairo Museum, CG 69837 and 69838.
Emerit, S., "Music and Musicians", p.4, Fig.8.

Fig.5 Female musicians the one plays oboe and a Nubian, tomb of Djeser-karesoneb,
Spencer, P., "Dance in Ancient Egypt", p.118.

Fig.6 Monkey playing the double oboe, Ostracon Deir el-Medina, Medelhavsmuseet, Stockholm, no.14050.
Emerit, S., "Music and Musicians", p.2, Figure 3.
Fig. 7 A fox shepherd playing the oboe behind the flock, British Museum, papyrus (10016)
Manniche, L., *Music and Musicians*, p.22, fig.10

Fig. 8 Ptolemaic terracotta figurine of a priest playing an aulos, Hungarian national Museum
Török, L., *Hellenistic and Roman Terracottas*, Pl.XII.

Fig. 9 Roman terracotta figurine of a an aulos player, (Louvre Museum, E 29777)
Fig. 10 A terracotta figurine shows two musicians: aulos and lyre players
Hickmann, H., "Miscellanea Musicologica", p.539, fig.8.

Fig. 11 A terra cotta figurine of a lady accompanied by a child playing aulos, 2nd century B.C., (Londres, British Museum, inv. GR 1926.9-30.35).
Vendries, C., "Questions d'iconographie musicale", p.204.

Fig. 12 A terra cotta headless squatting male figure playing with an aulos, British Museum, 1973, 0501.31
Fig. 13 A terra cotta figurine of a dancing male playing with an aulos, British Museum (1886, 0401.1581)

Fig. 14 A terra-cotta lamp represented with musicians accompanied by Bes. The central one plays a double aulos.
Vendries, C., "Questions d'iconographie musicale", 226, PL Ixc3.

Fig. 15 A terracotta Roman lamp showing Eros playing the aulos, British Museum (1987, 0402.15)
http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=432019&partId=1&searchText=double+pipes&page=1
Fig. 16 A terra cotta Roman lamp represented with a dancing male figure playing with an aulos, British Museum (1971,0426.45)
http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=432205&partId=1&searchText=double+pipes&page=1

Fig. 17 Piece of a coffin floorboard dated from the Roman period in the Royal Ontario Museum
http://commons.wikimedia.org/wiki/File:Coffin_floorboard_depicting_Isis_being_served_wine_by_the_deceased,_Egypt,_Roman_Period,_30_BC_-_AD_324_-_Royal_Ontario_Museum_-_DSC09735.JPG
Fig. 18 Wooden clappers, from the Late Period, Egyptian Museum in Cairo, JE 39181, a, b and JE 39182, a, b

Fig. 19 Pair of bronze cymbals linked by a bronze chain, Naples Archaeological Museum, no. 76943, 1st century A.D.

Fig. 20 Painting of a Greek vase from the fifth century B.C. shows a female performer playing with crotals in her two hands.
Fig. 21 A crotal from the Roman period with a wooden handle, British Museum (54014)  
Anderson, R. D., *Catalogue of Egyptian Antiquities*, p.28, fig.41.

Fig. 22 A crotal from the Roman period with a decorated handle, British Museum (EA26260)  
http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=171785&partId=1&searchText=Cymbals+&page=1

Fig. 23. A bronze statuette of dancing female dwarf playing with crotals, British Museum (1926,0415.32)  
http://www.britishmuseum.org/collectionimages/AN00967/AN00967211_001_l.jpg
Fig. 24 Vase painting from Deir el-Medina shows Bes playing the double oboe
Manniche, L., "The Erotic Oboe", p.196, fig.5.

Fig. 25 A scene from a house at Deir el-Medina, a lady plays the double oboe with a tattoo of Bes on her two thighs.
Manniche, L., "The Erotic Oboe", p.197, fig.6.
المزمز، والصناج في مصر اليونانية الرومانية

دمروة عبد المجيد القاضى

الملخص:

المزمز والصناج هما آلتين موسيقتين مختلفتين تمام الاختلاف، فالزمز هو آلة نفخ، أما الصناج فهو آلة إيقاعية. كانت تلك الآلتين من أشهر الآلات الموسيقية المفضلة في مصر اليونانية الرومانية.

كان المزمز (أيوولوس) من ضمن الآلات الموسيقية اليونانية التي لعبت دوراً كبيراً في الدين والأساطير، والفن والحياة اليومية. استخدمت تلك الآلة على نطاق واسع في مصر اليونانية الرومانية، كما ارتبطت بالعديد من الآلهة المصرية مثل أسوس، حتور، باستيت وحورس الطفل (ديونيسوس، باخوس)، أثينا (مينيرا)، وأبولو. يستند على ذلك من كتابات المؤرخين، والمناظر المصورة، والتماثيل الفخارية الصغيرة، والكتب اليومية. وبالرغم من معرفة تلك الآلة في مصر في العصر البطلمي، إلا أن آلة الأنبوب المزدوج الموسيقي كانت معروفة بالفعل في مصر الفرعونية ومثلت في العديد من المشاهد الموسيقية في المقابر منذ عهد الدولة الحديثة على الأقل. وفي العصر اليوناني الروماني، حلت آلة المزمز (أيوولوس) محل تلك الآلة المصرية وأصبحت تلعب دوراً حيوياً في الحياة اليومية والحياة الدينية.

أما بالنسبة لآلة الصناج، Κρόταλα، فهي أحد الآلات الإيقاعية التي عرفت في العالم اليوناني الروماني. عرفت تلك الآلة الإيقاعية كذلك في مصر منذ العصور الفرعونية، كما عرفت واشتهرت كذلك في مصر اليونانية الرومانية، حيث لعبت دوراً هاماً في المجتمع خلال تلك الفترة.

يدرس البحث أهمية كل آلة موسيقية منهما في مصر اليونانية الرومانية على المستوى الديني والدنيوي من خلال دراسة جذورهما وأدوارهما في التاريخ والأسطر والفن في مصر اليونانية الرومانية. كما يقوم البحث بالمقارنة بين استخدامات كلتا الآلتين وعلاقتها بينهما ومن ثم تعلمها مع وفق أي مناسبات. ويصل البحث إلى مجموعة من النتائج التي ترتبط بالأدوار المختلفة التي لعبها كل من المزمز والصناج في مصر اليونانية الرومانية. ويمكن تقسيم هذه الأدوار إلى

• أستاذ مساعد، قسم الإرشاد السياحي، كلية السياحة والفنادق- جامعة الإسكندرية

elkady.marwa@yahoo.com

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أدوار دينية ارتبطت بعبادة مجموعة من الآلهات المصرية واليونانية والرومانية وتوضيح كيفية ارتباط تلك العبادات بالآلهتين، والاحتفالات الدينية، وأدوار ارتبطت بأنشطة الحياة اليومية المختلفة.

الكلمات الدالة:
المزمار، الصناد، اليوناني الرومانى، التماثيل الصغيرة، مصابيح، دينى، دنيوى، تصوير، برديات.